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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,081	03/02/2004	Scong-Bong Kim	6192.0358.US	2543

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McGuireWoods
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EXAMINER

LAMB, BRENDA A

ART UNIT PAPER NUMBER

1734

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/790,081

Applicant(s)

KIM ET AL.

Examiner

Brenda A. Lamb

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-33 is/are allowed.
- 6) ☒ Claim(s) 34-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaya et al in view Morton et al.

Kaya et al teaches the design of an apparatus for coating a substrate comprising: a support 7 supporting a substrate; a coater 3 including a discharging unit for discharging the coating onto substrate and coating the substrate; a detector 1 for detecting coating defects which can include foreign matters on the surface of the substrate, and a controller controlling the coater and the detector. Kaya et al teaches the nozzles are movable in accordance with which reads on the term "along" the shape of the substrate (see column 2 line 52 to column 3 line 35). Kaya et al fails to teach the detector 1 is disposed in front of the coater. However, Morton et al teaches the design

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of an apparatus as shown in Figure 1 for coating a substrate comprising: a support supporting a substrate; a coater S including a discharging unit for discharging the coating onto substrate and coating the substrate; a detector D for detecting defects on the surface of the substrate, the detector is arranged in front of the coater and a controller controlling the coater and the detector. Morton et al teaches the detector is arranged in front of and spaced apart from the coater so the coating does not contact or interfere with the operation of the detector means D or the rest of the apparatus (see column 6 lines 63-68). Therefore, it would have been obvious to modify the Kaya et al by arranging the detector in front of the coaters since Morton et al teaches arranging the detectors in front of the coaters for the taught advantage of preventing contact or interference of coating with the operation of the detector means D or the rest of the apparatus. With respect to claims 35-36, Kaya et al teaches the detector includes an image sensor which is a CCD camera.

Claims 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaya et al in view Morton et al and, if necessary, Chase and Benner et al.

Kaya et al teaches the design of an apparatus for coating a substrate comprising: a support 7 supporting a substrate; a coater 3 including a discharging unit for discharging the coating onto substrate and coating the substrate; a detector 1 for detecting coating defects which can include foreign matters on the surface of the substrate, and a controller controlling the coater and the detector. Kaya et al teaches the nozzles are movable (see column 2 line 52 to column 3 line 35). Kaya et al fails to teach the detector 1 is disposed in front of the coater. However, Morton et al teaches

the design of an apparatus as shown in Figure 1 for coating a substrate comprising: a support supporting a substrate; a coater S including a discharging unit for discharging the coating onto substrate and coating the substrate; a detector D for detecting defects on the surface of the substrate, the detector is arranged in front of the coater and a controller controlling the coater and the detector. Morton et al teaches the detector is arranged in front of and spaced apart from the coater so the coating does not contact or interfere with the operation of the detector means D or the rest of the apparatus (see column 6 lines 63-68). However, it would have been obvious to modify the Kaya et al by arranging the detector in front of the coaters since Morton et al teaches arranging the detectors in front of the coaters for the taught advantage of preventing contact or interference of coating with the operation of the detector means D or the rest of the apparatus. Further, although as discussed above, the instant claims reads on a transfer unit movable in accordance with which reads on the term "along" the shape of the substrate which Kaya et al teaches (see column 2 line 52 to column 3 line 35). If applicant intended to claim that the transfer unit moves the discharging unit along the length of the substrate and amends the claim in such a manner to claim such movement, the examiner maintains that it would have been obvious given the modifications of the Kaya et al apparatus as discussed above to arrange its detectors and coaters on an arched support which is capable of traveling along the length of the surface of the substrate since it is known to arrange nozzles supported on arched support that extends over the substrate with means for moving the coater such that the coater can be moved along the direction of travel of the substrate if desired and, if

necessary, is shown Chase (motive means along rails 12 as shown in Figure1), Benner et al (wheels 18 as shown in Figure1) for the obvious advantage of greater control of the process.

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 34-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 34 is confusing due to a typographical error. It is suggested that applicant at line 8 of claim 34 after "substrate by the" insert – discharging --; at line 8 of claim 34 after "unit" delete "substrate".

Claims 37-39 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

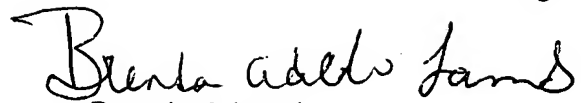
Claims 27-33 are allowed.

Any inquiry concerning this communication should be directed to Brenda A. Lamb at telephone number (571) 272-1231. The examiner can normally be reached on Monday-Tuesday and Thursday-Friday with alternate Wednesdays off.

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A handwritten signature in black ink that reads "Brenda A Lamb". The signature is written in a cursive style with a large initial "B" and a stylized "Lamb".

Brenda A Lamb
Examiner
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